REMARKS

Claims 1-12 and 16-28 are all the claims presently pending in the application. Claims 1, 5, 16, 27 and 28 have been amended to further define the claimed invention.

It is noted that the claim amendments are made only for more particularly pointing out the invention, and not for distinguishing the invention over the prior art, narrowing the claims or for any statutory requirements of patentability. Further, Applicant specifically states that no amendment to any claim herein should be construed as a disclaimer of any interest in or right to an equivalent of any element or feature of the amended claim.

Claims 1-12 and 16-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble (U.S. Patent No. 5,954,596), in view of Beach (U.S. Patent No. 6,623,378 B2), Thorne, et al. (U.S. Patent No. 5,800,285), Sasamoto (U.S. Patent No. 6,193,614 B1) and Kosmatka (U.S. Patent No. 5,830,084). Claims 1-11, 16-22 and 24-28 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble, in view of Kosmatka. Claims 12 and 23 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Noble, in view of Kosmatka and Sasamoto.

These rejections are respectfully traversed in view of the following discussion.

I. THE CLAIMED INVENTION

The claimed invention (e.g., as recited in claim 1 and similarly recited in claims 16 and 28) is directed to a golf club head having a face portion formed by using a rolled metal plate member, the face portion having a thick-walled portion and a thin-walled portion. A reverse surface of the face portion includes a flat surface at the thick-walled portion. Importantly, the thin-walled portion is formed around the flat surface.

In another exemplary aspect (e.g., as recited in claim 9), the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. These novel features of the invention help to avoid a plastic

deformation of the face portion, ensuring that little variation occurs in the density of the face portion (Application at page 5, lines 1-10).

II. THE PRIOR ART REJECTIONS

(A) The 35 U.S.C. §103(a) Rejection Based on Noble, Beach, Thorne, Sasamoto and Kosmatka

The Examiner alleges that Noble would have been combined with Beach, Thorne, Sasamoto and Kosmatka to form the claimed invention of claims 1-12 and 16-28. Applicant would submit, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

First, Applicant would note that the Examiner is surprisingly combining no less than five references in his attempt to reject the claims of the present Application. Applicant would note that is stretching the bounds of reason to allege that four references would have been combined as alleged by the Examiner. Thus, Applicant would submit that, based on this fact alone, it is clear that the Examiner has failed to make a prima facie case of obviousness.

Further, Applicant would submit that these references are directed to different problems and solutions. Therefore, Applicant would submit that these references would not have been combined as alleged by the Examiner.

Noble discloses a golf club head in which the front wall of the body varies in thickness in two planes including a first plane that is disposed substantially horizontally between the top and bottom walls of the body and a second plane that is disposed substantially vertically between the heel and toe ends of the head.

Contrary to Noble, Beach discloses a method for forming a golf club head which includes placing an uncured composite material between a core and a mold that comprises a first piece and a second piece. The second piece is moved towards the first piece such that the uncured composite material is compressed between the core and at least a portion of the mold.

Contrary to Noble and Beach, Thorne discloses a golf club part including a metal

component including a photo-chemically engraved artwork formed in its surface. The part is etched by applying a photoresist material to the metal surface, using graphic art film, and masking of surface areas in which artwork will be created by subsequent photochemical engraving.

Contrary to Noble, Beach and Thorne, Sasamoto discloses a golf club head in which the longitudinal direction of crystal grains of a material of the face portion is oriented in the vertical direction of the face portion, or the direction in which the material exhibits a large ductile amount at the time of breaking is oriented in said vertical direction, or the direction in which the material exhibits a large ratio of ductility per unit length is oriented in said vertical direction.

Contrary to Noble, Beach, Thorne and Sasamoto, Kosmatka discloses a contoured golf club face which is intended for educational purposes. The club face includes a non-tapered vertical stiffening region, a tapered horizontal stiffening region, four similar contoured quadrants of increasingly thinning material toward the center of each quadrant, and thickening regions at face/sole and face/crown intersection regions. Importantly, the present invention may be used to provide an educational tool for use in teaching and/or learning to consistently impact a ball on the optimal region of the club face.

Thus, Applicant would submit that these references are completely unrelated, and no person of ordinary skill in the art would have considered combining these disparate references, absent impermissible hindsight.

Further, Applicant would submit that the Examiner can point to no motivation or suggestion in the references to urge the combination as alleged by the Examiner. Indeed, Applicant would submit that nowhere do these references include any motivation or suggestion for their combination. Therefore, Applicant would respectfully submit that one of ordinary skill in the art would not have been so motivated to combine the references as alleged by the Examiner. Therefore, the Examiner has failed to make a prima facie case of obviousness.

Moreover, Applicant would submit that neither Noble, nor Beach, nor Thorne, nor Sasamoto, nor Kosmatka, nor any combination thereof teaches or suggests "*wherein a reverse surface of said face portion comprises a flat surface at said thick-walled portion, said thin-*

walled portion being formed around said flat surface", as recited in claim 1, and similarly recited in claims 16 and 28. Nor do these references or any combination thereof teach or suggest "*wherein a thickness of said thick-walled portion is substantially the same as a thickness of a plate from which said face portion is forged*", as recited, for example, in claim 9.

Some conventional golf club heads may have a face portion with a varying thickness. However, such heads often break due to imperfections caused in part to a fabrication method. (Application at page 5, lines 1-10).

In one exemplary aspect of the claimed invention, on the other hand, a reverse surface of the face portion includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface (Application at Figure 4; page 15, lines 6-20), and in another exemplary aspect, the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged (Application at page 26, lines 13-19).

As noted above, these novel features of the invention help to avoid a plastic deformation of the face portion, ensuring that little variation occurs in the density of the face portion (Application at page 5, lines 1-10).

Clearly, these novel features are not taught or suggested by the cited references. Indeed, the Examiner expressly states that Noble does not teach or suggest these features. Applicant would submit that likewise neither Beach, Thorne, Sasamoto nor Kosmatka teach or suggest these features.

Specifically, Beach does not teach or suggest these features. The Examiner alleges that Beach discloses forming a club head face by forging, attempting to rely on col. 4, lines 16-18 of Beach. However, this passage merely states that the strike plate can be formed by forging. Nowhere does this passage teach or suggest a thick-walled portion or a thin-walled portion. Thus, certainly, the passage does not teach or suggest a reverse surface of the face portion which includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface.

Further, this passage in Beach does not teach or suggest that such thick-walled and thin-walled portions are formed by forging the rolled metal plate, nor that a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Beach clearly fails to make up for the deficiencies of Noble.

Similarly, Thorne does not teach or suggest these features. The Examiner attempts to rely on col. 2, lines 60-64 of Thorne to support his allegations. However, this is clearly incorrect.

In fact, this passage merely teaches that parts of a golf club head can be formed by forging and machining. Nowhere does this passage teach or suggest a thick-walled portion or a thin-walled portion. Thus, certainly, the passage does not teach or suggest a reverse surface of the face portion which includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface.

Nor does this passage teach or suggest a face portion in which the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Thorne clearly fails to make up for the deficiencies of Noble and Beach.

Indeed, Applicant would point out that Thorne is merely directed to etching a logo (e.g., Ruger®) in a surface of a club head. Thus, Thorne is completely unrelated to the claimed invention.

Likewise, Sasamoto does not teach or suggest the novel features. The Examiner attempts to rely on col. 9, lines 1-65 of Sasamoto to support his allegations. However, this is clearly incorrect.

Indeed, the passage is merely directed to an orientation of the crystal grains in a face portion. Nowhere does this passage teach or suggest, a reverse surface of the face portion which includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface., nor that a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Sasamoto clearly fails to make up for the deficiencies of Noble, Beach and Thorne.

Likewise, Kosmatka does not teach or suggest the novel features. The Examiner attempts to rely on Figure 2 and col. 5, lines 30-50 of Kosmatka to support his allegations. However, this is clearly incorrect.

First, Applicant would point out that, in virtue of forming the thin-walled portion around the flat surface, in the claimed invention, striking feeling is improved as compared with the case of a club head face of Kosmatka that has a thick-walled portion formed throughout the face vertically.

More specifically, Kosmatka teaches a vertical stiffening region 16 and a horizontal stiffening region 18 which have thicknesses "T" (Kosmatka at Figures 2A, 2B; col. 4, lines 46-63). Kosmatka may teach that the horizontal stiffening region 18 is tapered down to a thickness "t" (Kosmatka at Figure 2A). However, Kosmatka clearly does not teach or suggest that the vertical stiffening region has such a taper. In fact, Kosmatka teaches that the vertical stiffening region 16 has the same thickness T from the top to the bottom of the face 10. Indeed, Kosmatka teaches that the regions 16, 18 define four quadrants 20a-20d on the that the back surface of the face 10.

Therefore, Kosmatka teaches a portion (e.g., vertical stiffening portion 16) having a single, uniform thickness "T" which separates that left and right portions of the back surface of the face 10. Clearly, this is unlike the claimed invention in which a thin-walled portion is formed around the flat surface.

Further, nowhere does Kosmaka teach or suggest a face portion in which the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Kosmatka clearly does not make up for the deficiencies of Noble, Beach, Thorne and Sasamoto.

In addition, Applicant would point out that Kosmatka is merely directed to a club that can be used as an educational tool. Thus, Kosmatka is not concerned with a plastic deformation of the face portion, but instead, is only concerned about the "tone" of sound generated by the club when the club is struck (Kosmatka at Abstract).

Therefore, Applicant would submit that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

(B) The 35 U.S.C. §103(a) Rejection Based on Noble and Kosmatka

The Examiner alleges that Noble would have been combined with Kosmatka to form the claimed invention of claims 1-11, 16-22 and 24-28. Applicant would submit, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

First, Applicant would note that this rejection appears to contradict the first rejection discussed above in paragraph II (A). Indeed, in the first rejection the Examiner concedes that Noble does not teach or suggest many of the features of the claims, and relies on Beach, Thorne and Sasamoto as allegedly disclosing such features.

However, in this rejection, the Examiner alleges that "Noble shows every feature claimed with the exception of clearly showing a flat surface at the thick walled portion of the face plate" (Office Action at page 5, lines 8-9). This clearly contradicts the Examiner's statement made with respect to the first rejection.

Clearly, such a contradiction makes it difficult to respond to the Examiner's allegations. Thus, Applicant would respectfully request that the Examiner clarify his position with respect to which references he is allegedly combining to form the claimed invention, and specifically how the Examiner alleges that these references would have been combined, so that Applicant can prepare a focused response.

In addition, as noted above, Applicant would submit that Noble and Kosmatka are directed to different problems and solutions. Therefore, Applicant would submit that these references would not have been combined as alleged by the Examiner.

Moreover, Applicant would submit that neither Noble, nor Kosmatka, nor any combination thereof teaches or suggests "*wherein a reverse surface of said face portion comprises a flat surface at said thick-walled portion, said thin-walled portion being formed*

around said flat surface", as recited in claim 1, and similarly recited in claims 16 and 28. Nor do these references or any combination thereof teach or suggest "*wherein a thickness of said thick-walled portion is substantially the same as a thickness of a plate from which said face portion is forged*", as recited, for example, in claim 9.

Clearly, these novel features are not taught or suggested by the cited references. Indeed, as noted above, the Examiner expressly states that Noble does not teach or suggest these features. Likewise neither does Kosmatka teach or suggest these features.

First, as noted above, in virtue of forming the thin-walled portion around the flat surface, in the claimed invention, striking feeling is improved as compared with the case of a club head face of Kosmatka that has a thick-walled portion formed throughout the face vertically.

Specifically, Kosmatka teaches a vertical stiffening region 16 and a horizontal stiffening region 18 which have thicknesses "T" (Kosmatka at Figures 2A, 2B; col. 4, lines 46-63). Kosmatka may teach that the horizontal stiffening region 18 is tapered down to a thickness "t" (Kosmatka at Figure 2A). However, Kosmatka clearly does not teach or suggest that the vertical stiffening region has such a taper. In fact, Kosmatka teaches that the vertical stiffening region 16 has the same thickness T from the top to the bottom of the face 10. Indeed, Kosmatka teaches that the regions 16, 18 define four quadrants 20a-20d on the that the back surface of the face 10.

Therefore, Kosmatka teaches a portion (e.g., vertical stiffening portion 16) having a single, uniform thickness "T" which separates that left and right portions of the back surface of the face 10. Clearly, this is unlike the claimed invention in which a thin-walled portion is formed around the flat surface.

Further, nowhere does Kosmaka teach or suggest a face portion in which the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Kosmatka clearly does not make up for the deficiencies of Noble.

Therefore, Applicant would submit that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the

claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

(C) The 35 U.S.C. §103(a) Rejection Based on Noble, Kosmatka and Sasamoto

The Examiner alleges that Noble would have been combined with Kosmatka and that the alleged Noble/Kosmatka combination would have been further combined with Sasamoto to form the claimed invention of claims 12 and 23. Applicant would submit, however, that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention.

Again, Applicant would note that this rejection appears to contradict the first rejection discussed above in paragraph II (A). Thus, Applicant would respectfully request that the Examiner clarify his position with respect to which references he is allegedly combining to form the claimed invention, and specifically how the Examiner alleges that these references would have been combined, so that Applicant can prepare a focused response.

In addition, as noted above, Applicant would submit that these references are directed to different problems and solutions. Therefore, Applicant would submit that these references would not have been combined as alleged by the Examiner.

Moreover, Applicant would submit that neither Noble, nor Kosmatka, nor Sasamoto, nor any combination thereof teaches or suggests "*wherein a reverse surface of said face portion comprises a flat surface at said thick-walled portion, said thin-walled portion being formed around said flat surface*", as recited in claim 1, and similarly recited in claims 16 and 28. Nor do these references or any combination thereof teach or suggest "*wherein a thickness of said thick-walled portion is substantially the same as a thickness of a plate from which said face portion is forged*", as recited, for example, in claim 9.

Clearly, these novel features are not taught or suggested by the cited references. Indeed, as noted above, the Examiner expressly states that Noble does not teach or suggest these features. Likewise neither does Kosmatka teach or suggest these features.

First, as noted above, in virtue of forming the thin-walled portion around the flat surface, in the claimed invention, striking feeling is improved as compared with the case of a club head

face of Kosmatka that has a thick-walled portion formed throughout the face vertically.

Specifically, Kosmatka teaches a vertical stiffening region 16 and a horizontal stiffening region 18 which have thicknesses "T" (Kosmatka at Figures 2A, 2B; col. 4, lines 46-63). Kosmatka may teach that the horizontal stiffening region 18 is tapered down to a thickness "t" (Kosmatka at Figure 2A). However, Kosmatka clearly does not teach or suggest that the vertical stiffening region has such a taper. In fact, Kosmatka teaches that the vertical stiffening region 16 has the same thickness T from the top to the bottom of the face 10. Indeed, Kosmatka teaches that the regions 16, 18 define four quadrants 20a-20d on the that the back surface of the face 10.

Therefore, Kosmatka teaches a portion (e.g., vertical stiffening portion 16) having a single, uniform thickness "T" which separates that left and right portions of the back surface of the face 10. Clearly, this is unlike the claimed invention in which a thin-walled portion is formed around the flat surface. Further, nowhere does Kosmaka teach or suggest a face portion in which the thick-walled portion and the thin-walled portion are formed in the face portion by forging the rolled metal plate, and a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged.

Likewise, Sasamoto does not teach or suggest the novel features. As noted aboe, the Examiner attempts to rely on col. 9, lines 1-65 of Sasamoto to support his allegations. However, this passage is merely directed to an orientation of the crystal grains in a face portion. Nowhere does this passage teach or suggest, a reverse surface of the face portion which includes a flat surface at the thick-walled portion, the thin-walled portion being formed around the flat surface., nor that a thickness of the thick-walled portion is substantially the same as a thickness of a plate from which the face portion is forged. Therefore, Sasamoto clearly does not make up for the deficiencies of Noble and Kosmatka.

Therefore, Applicant would submit that these references would not have been combined and even if combined, the combination would not teach or suggest each and every element of the claimed invention. Therefore, the Examiner is respectfully requested to withdraw this rejection.

III. FORMAL MATTERS AND CONCLUSION

Applicant notes that claim 27 has been amended to depend from claim 9, to address the Examiner's objection to claim 27.

In view of the foregoing, Applicant submits that claims 1-12 and 16-28, all the claims presently pending in the application, are patentably distinct over the prior art of record and are in condition for allowance. The Examiner is respectfully requested to pass the above application to issue at the earliest possible time.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at the local telephone number listed below to discuss any other changes deemed necessary in a telephonic or personal interview.

The Commissioner is hereby authorized to charge any deficiency in fees or to credit any overpayment in fees to Attorney's Deposit Account No. 50-0481.

Respectfully Submitted,

Date: 7/30/04

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CERTIFICATE OF FACSIMILE TRANSMISSION

I hereby certify that the foregoing Amendment was filed by facsimile with the United States Patent and Trademark Office, Examiner Sebastiano Passaniti, Group Art Unit #3711 at fax number (703) 872-9306 this 30th day of July, 2004.

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